Derrickman Falls to Death From Collapsed Oil Rig

The following is a real-life example of what went wrong and what corrective measures resulted from incidents in the oil and gas industry.

What happened:

A 32-year-old derrickman died after he fell 65 feet (20 meters) when the drilling rig he was working on collapsed and fell to the ground.

On the day of the incident, four workers were located on the rig floor (one on each guy wire). A driller was in the doghouse (control room) and a derrick man was on the derrick board guiding pipe out of a hole.

The six-man crew had taken the last piece of drill pipe and collars out of the hole and began stacking them to the side. When the pipe was out of the hole, the drill collars in the pipe rack began to shift. The shifting weight of the collars caused a strain on the welds, causing the rig to pull against the guy wires, which were improperly installed. The rig fell over and crushed the derrickman.

What caused it:

Evidence suggests that the shifting of drill collars, improper anchoring of guy lines and a failed weld on the drilling rig leg may have contributed to the collapse.

Upon inspection, some of the rig’s welds were cracked. Four guy wires were attached to the rig, but at least one was improperly anchored to a flatbed truck.

The shifting weight of the drill collars caused a strain on the welds, causing the rig to pull against the guy lines.

The derrickman died immediately from multiple crush injuries to

his head, chest, abdomen and limbs.

Safety Recommendations:

- Employers should ensure that all structural welding on a rig is in accordance with guidelines, and that welding is regularly inspected and maintained by a qualified inspector.
- Employers should ensure that the crew properly erects a wind gust line and correctly installs guy lines to prevent rig collapse.
- Employers should ensure that an emergency escape device is on the derrick board. In accordance with guidelines, structures are required to be equipped with a means of escape in case of fire or other emergency. The drilling rig in this case was not equipped with an emergency escape device, which might have hastened the escape of the derrickman and prevented injury.
- Employers should develop, implement and enforce a written, comprehensive safety program. The employer in this case did not have a written safety program. Such a program should include the recognition, control and avoidance of hazardous situations.